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## NOTICE OF ALLOWANCE AND FEE(S) DUE

20210 7590 03/22/2010

DAVIS & BUJOLD, P.L.L.C.  
112 PLEASANT STREET  
CONCORD, NH 03301

EXAMINER

HOEY, ALISSA L

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 03/22/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,898

06/05/2006

Gerd Hexels

LORWER P45AUS

1922

TITLE OF INVENTION: PROTECTIVE CLOTHING FOR THE LOWER PART OF THE LEG

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

YES

\$755

\$300

\$0

\$1055

06/22/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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20210 7590 03/22/2010

**DAVIS & BUJOLD, P.L.L.C.**  
112 PLEASANT STREET  
CONCORD, NH 03301

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,898	06/05/2006	Gerd Hexels	LORWER P45AUS	1922

TITLE OF INVENTION: PROTECTIVE CLOTHING FOR THE LOWER PART OF THE LEG

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	06/22/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
HOEY, ALISSA L	3765	002-239000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

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Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/581,898	06/05/2006	Gerd Hexels	LORWER P45AUS	1922
20210	7590	03/22/2010	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			HOEY, ALISSA L	
			ART UNIT	PAPER NUMBER
			3765	
DATE MAILED: 03/22/2010				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 13 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 13 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/581,898	HEXELS, GERD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alissa L. Hoey	3765	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/17/10.
2. ☒ The allowed claim(s) is/are 37,41,42,45-50,53,54,58-62,64,71 and 72.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.   |

/Alissa L. Hoey/  
Primary Examiner, Art Unit 3765

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Bujold on 02/17/10.

The application has been amended as follows:

#### **Replace claim 37 with the following:**

37. A lower leg protective apparel for providing protection from one of chemical and biological noxiants, the lower leg protective apparel comprising:

a sock having a toe section and a heel section, and

the sock having a plurality of plies and comprising:

an outersock (1),

a laminate (2), disposed on an inner side of the outersock (1),

consisting of first, second and third layers,

the first layer being a single flexible, windproof, breathable and water-rejecting membrane (7) which forms the outer surface of the laminate (2) and which forms at least a barrier to biological noxiants and at least a partial barrier to liquid chemical noxiants,

the second layer being a single carbon layer (8) which is disposed underneath the membrane (7) and which comprises carbon in one of a fibrous form and as active spherules of carbon,

the third layer being an inner textile ply (9), and  
an innersock (3) disposed as a second textile ply on an inner side of the laminate (2),

wherein at least one of the outersock (1) and the innersock (3) is fabricated from a plurality of cuts (4, 5, 6), seams between the cuts (4, 5, 6) being sealed by a seam-sealing tape comprising a waterproof material, and

the outersock (1), the laminate (2) and the innersock (3) are assembled to one another as a single unit by at least one of bonding and stitching.

**Replace claim 47 with the following:**

47. A lower leg protective apparel for providing protection from at least one of chemical and biological noxiants, the lower leg protective apparel being a sock garment comprising:

a toe section and a heel section, and

the sock garment having a plurality of plies and comprising:

an outersock (1), and

a laminate (2), disposed on an inner side of the outersock (1),

comprising:

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a single flexible, windproof and water-rejecting membrane (7), comprising a polytetrafluoroethylene membrane, which forms the outer surface of the laminate (2) and pores of the membrane (7) have a size such that the pores are pervious to water vapor but the pores are resistant to permeation of biological and chemical noxiants through the pores,

a single carbon layer (8) which is disposed underneath the membrane (7) and which comprises carbon in a fibrous form, and

an inner textile ply (9),

wherein at least the laminate is produced by a cut for a shaft (4), a cut for an upper part of a foot (5) and a cut for a sole (6), and seams between the cuts (4, 5, 6) are sealed by a waterproof material;

a thickness of carbon layer (8) is in a range from 0.2 to 1.0 mm; and

an innersock (3) is hydrophilic.

**Replace claim 48 with the following:**

48. A sock garment comprising:

a toe section and a heel section for protecting at least a foot of a wearer from one of chemical and biological noxiants, the sock garment having a plurality of plies and comprising:

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an outersock (1),

a laminate (2), disposed on an inner side of the outersock (1),

comprising a single flexible, windproof and water-rejecting membrane (7) with the membrane (7) being one of a polyester, a polyether and a mixture of a polyester and a polyether and which forms the outer surface of the laminate (2) and which forms at least a barrier to biological noxiants and at least a partial barrier to liquid chemical noxiants,

a single carbon layer (8) disposed underneath the membrane (7)

and which comprises a fabric of one of a woven carbon fiber material and a loop-drawingly knit carbon fiber material, and

an inner textile ply (9),

wherein at least one of the outersock (1) and an innersock (3) is fabricated from a plurality of cuts (4, 5, 6), and seams between the cuts (4, 5, 6) are sealed by a waterproof material;

a thickness of carbon layer (8) is in a range from 0.2 to 1.0 mm;

the innersock (3), at an upper most portion of the sock garment, folds back over the laminate (2) and the outersock (1) and covers a portion of an outer side of the outersock (1) to expose the innersock (3) to an exterior of the sock garment and facilitate evaporation of moisture absorbed thereby and

the innersock (3) is hydrophilic.



**Claim 72 should be replaced with the following:**

72. A sock garment for providing protection to at least a foot of a wearer from one of chemical and biological noxiants, the sock garment consisting of:

a toe section and a heel section, and

the sock garment having first, second and third plies;

the first ply consisting of an outersock (1) comprising at least one of one of wool, cotton, silk, polyester, polypropylene, polyamide and polyacrylic;

the second ply being a laminate (2) consisting of first, second and third layers, with the first layer being adjacent an inner side of the outersock (1),

the first layer of the laminate (2) consisting of a single flexible, windproof, breathable and water-rejecting membrane (7) which forms an outer surface of the laminate (2) and which forms at least a barrier to biological noxiants and at least a partial barrier to liquid chemical noxiants,

the second layer of the laminate (2) consisting of a single carbon layer (8) which is disposed underneath the membrane (7) and which comprises carbon in a fibrous form from one of a woven and a loop-drawingly knit fabric,

the third layer of the laminate (2) consisting of an inner hydrophilic textile ply (9) that is one of a woven and a loop-formingly knit fabric, and

the third ply consisting of an innersock (3) that is hydrophobic and disposed adjacent the third layer of the laminate (2) and comprises at least one

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of polypropylene, polyamide and polyester;

wherein at least one of the outersock (1) and the innersock (3) is fabricated from a plurality of cuts (4, 5, 6), seams between the cuts (4, 5, 6) being sealed by a seam-sealing tape comprising a waterproof material,

a thickness of carbon layer (8) is in a range from 0.2 to 1.0 mm;

the innersock (3), at an upper most portion of the sock garment, folds back over the laminate (2) and the outersock (1) and covers a portion of an outer side of the outersock (1) to facilitate evaporation of moisture absorbed thereby; and

the outersock (1), the laminate (2) and the innersock (3) are bonded to one another as a single unit.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alissa L. Hoey whose telephone number is (571) 272-4985. The examiner can normally be reached on M-F (8:00-5:30)Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alissa L. Hoey/  
Primary Examiner, Art Unit 3765